

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

6154 Mission Gorge Road
(Mail: Suite 205/Enter: Suite 106)
San Diego, California 92120-1939
Telephone: (619) 265-5114



March 10, 1986

CERTIFIED - RETURN RECEIPT REQUESTED

Mr. Paul S. Morton
Maintenance Engineer
Unocal Corporation
P.O. Box 7600
San Diego, California 92138

Dear Mr. Morton:

Enclosed is a copy of Cleanup and Abatement Order No. 86-26. This Cleanup and Abatement Order is being issued to Unocal Corporation in response to the petroleum hydrocarbon leak in the underground tank system at the Union Oil Service Station No. 5633. The petroleum hydrocarbon leak was discovered on August 21, 1985 during a tank excavation. The 10,000 gallon tank containing unleaded gasoline had two corrosion holes and all ground water and soil samples collected from the tank excavation and from boring and monitoring wells were contaminated with petroleum hydrocarbons.

The issuance of this Cleanup and Abatement Order should not be construed as a punitive measure. On the contrary, Regional Board staff is satisfied with the ongoing good faith efforts being made by Unocal Corporation to clean up the petroleum hydrocarbon contamination caused by the underground tank leak at the Union Oil Service Station No. 5633. Rather, the Cleanup and Abatement Order provides the Regional Board with the means to take rapid enforcement action should the cleanup program stall some time in the future for whatever reason.

Basically, the Cleanup and Abatement Order directs Unocal Corporation to develop alternatives to cleanup the petroleum hydrocarbon contamination resulting from the underground tank leak. The Cleanup and Abatement Order also directs Unocal Corporation to implement the cleanup alternative selected by Regional Board staff after staff's review of the cleanup alternatives developed by Unocal Corporation.

This Cleanup and Abatement Order is issued to Unocal Corporation authority of California Water Code Section 13304. Section 13304 provides:

- (a) Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and shall upon order of the regional board clean up such waste or abate

State of California
Regional Water Quality Control Board
San Diego Region

EXECUTIVE OFFICER SUMMARY REPORT
March 14, 1988

Item: 21(c)

Subject: ENFORCEMENT
ADDENDUM NO. 1 TO CLEANUP AND ABATEMENT
ORDER NO. 86-26
UNOCAL CORPORATION
STATION NO. 5633, 967 EAST VISTA WAY, VISTA
SAN DIEGO COUNTY

Discussion: Unocal Corporation owns and operates service station No. 5633 at 967 East Vista Way, Vista in San Diego County. Petroleum hydrocarbon contamination was discovered in the excavation during routine tank replacement on August 21, 1985. The amount of fuel discharged is unknown. Although free product was not found on the ground water in monitoring wells, over 20 ppm total petroleum hydrocarbons have been found dissolved in the underlying ground water.

On March 10, 1986 the Executive Officer issued Cleanup and Abatement Order No. 86-26 to Unocal Corporation in response to the soil and ground water contamination at the site.

On May 1, 1986, Unocal Corporation submitted a report prepared by Woodward-Clyde Consultants that designed and estimated the cost of cleanup strategies for a range of potential final cleanup levels. Based on this information, the final cleanup levels have been set in Tentative Addendum No. 1.

Tentative Addendum No. 1, if adopted, will establish the final cleanup levels that Unocal Corporation must achieve at the site and quarterly monitoring requirements for the remainder of the cleanup project.

Issue: Does Unocal Corporation have any objections to the adoption of Addendum No. 1 to Cleanup and Abatement Order No. 86-26?

Recommendation: Staff recommends the adoption of Addendum No. 1 to Cleanup and Abatement Order No. 86-26.

the effects thereof or, in the case of threatened pollution or nuisance, take other necessary remedial action. Upon failure of any person to comply with such cleanup or abatement order, the Attorney General, at the request of the board, shall petition the superior court for that county for the issuance of an injunction requiring such person to comply therewith. In any such suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant.

- (b) The regional board may expend available moneys to perform any cleanup, abatement, or remedial work required under the circumstances set forth in subdivision (a) which in its judgement is required by the magnitude of endeavor or urgency of prompt action needed to prevent substantial pollution, nuisance, or injury to any waters of the state. Such action may be taken in default of, or in addition to, remedial work by the waste discharger or other persons, and regardless of whether injunctive relief is being sought. The regional board may perform the work itself, or by or in cooperation with any other governmental agency, and may use rented tools or equipment, either with operators furnished or unoperated. Notwithstanding any other provisions of law, the regional board may enter into oral contracts for such work, and the contracts, whether written or oral, may include provisions for equipment rental and in addition the furnishing of labor and materials necessary to accomplish the work. Such contracts shall be exempt from approval by the Department of General Services pursuant to the provisions of Section 14780 of the Government Code.
- (c) If such waste is cleaned up, the effects thereof abated, or, in the case of threatened pollution or nuisance, other necessary remedial action is taken by any governmental agency, the person or persons who discharged the waste, discharges the waste, or threatened to cause or permit the discharge of the waste within the meaning of subdivision (a), shall be liable to that governmental agency to the extent of the reasonable costs actually incurred in cleaning up such waste, abating the effects thereof, or taking other remedial action. The amount of such costs shall be recoverable in a civil action by, and paid to, such governmental agency and the state board to the extent of the latter's contribution to the cleanup costs from the State Water Pollution Cleanup and Abatement Account or other available funds.
- (d) If, despite reasonable effort by the regional board to identify the person responsible for the discharge of waste or the condition of pollution or nuisance, such person is not identified at the time cleanup, abatement or remedial work must be performed, the regional board shall not be required to issue an order under this section.
- (e) "Threaten," for the purpose of this section, means a condition creating a substantial probability of harm, when the probability and potential extent of harm make it reasonably necessary to take immediate action to prevent, reduce or mitigate damages to persons, property, or natural resources.

March 10, 1986

- (f) This section does not impose any new liability for acts occurring before January 1, 1981, if the acts were not in violation of existing laws or regulations at the time they occurred.

(Amended by Stats. 1971, Ch. 1288; by Stats, 1980, Ch. 808.)

(Note the authority of regional boards in subsection (b) to expend available moneys to perform cleanup work when a cleanup order has been issued under subsection (a), and prompt action is needed to prevent substantial pollution or nuisance. Full authority to take all necessary action can be delegated to executive officer (Section 13223). "Available moneys" ordinarily refers to moneys in the State Water Pollution and Abatement Account (Section 13441). Funds made available from an outside source, such as the Federal Government, could also constitute "available moneys." Note that authority to expend moneys for cleanup requires an exercise of judgment be in writing. A letter to the state board should request needed funds and give the reasons in the context of the statute, such as the existence of an "urgency of prompt action is needed to prevent substantial pollution." A previous phone call could ascertain whether necessary funds are available.)

In order to avoid further enforcement action by the Regional Board, I strongly urge a prompt and complete response to each directive of Cleanup and Abatement Order No. 86-26. The issuance of this Cleanup and Abatement Order to Unocal Corporation will be discussed at the March 24, 1986 Regional Board meeting. This meeting is open to public participation and you are welcome to attend. It is scheduled for 9:00 a.m. in Room B109 of the State Office Building, 1350 Front Street, San Diego.

Both my staff and I will be happy to work with you toward achieving compliance with the Cleanup and Abatement order. If you have any questions or would like to set up a meeting to discuss this matter further, please contact Mr. Dat Quach at (619) 265-5114.

Very truly yours,



LADIN H. DELANEY
Executive Officer

DTQ:rs

Enclosures

cc: Vicki Gallagher
Hazardous Materials Management Unit
Department of Health Services
1700 Pacific Highway
San Diego, CA 92101

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

CLEANUP AND ABATEMENT ORDER NO. 86-26

UNOCAL CORPORATION
UNION OIL SERVICE STATION
SAN DIEGO COUNTY

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board) finds that:

1. The Union Oil Service Station No. 5633 is located at 967 East Vista Way, in the city of Vista. The site lies in the Vista Hydrographic Subunit of the Carlsbad Hydrographic Unit.
2. On August 28, 1985, Unocal Corporation representatives and its consultant (Woodward-Clyde Consultants) met with Regional Board staff and County of San Diego Department of Health Services staff. A preliminary site assessment work plan was proposed and agreed to by both parties at this meeting.
3. On January 6, 1986, Regional Board staff received the results of the site assessment from Woodward-Clyde Consultants, dated October 30, 1985. The report stated that Unocal Corporation, while removing three underground storage tanks from the Union Oil gasoline service station, discovered two corrosion holes in the unleaded 10,000 gallon tank. The volume of unleaded petroleum product released to the ground is unknown. All ground water and soil samples collected from the tank excavation and from borings and monitoring wells were contaminated with petroleum hydrocarbons. Analysis results of one ground water sample were as follows:

a)	Benzene	2.1	ppm
b)	Ethyl benzene	1.6	ppm
c)	Toluene	7.8	ppm
d)	Xylenes	14.	ppm
e)	Other Purgeable Aromatic Compounds	<0.001	ppm
4. The *Comprehensive Water Quality Control Plan Report, San Diego Basin (9)* (Basin Plan) was adopted by this Regional Board on March 17, 1975; approved by the State Water Resources Control Board on March 20, 1975; and updated by the Regional Board on February 27, 1978; March 23, 1981; January 24 and October 3, 1983; and August 27, 1984. The 1978, 1981, 1983 and 1984 updates were subsequently approved by the State Board.
5. The Basin Plan established the following beneficial uses for the ground water in the Vista Hydrographic Subunit:
 - (a) Municipal and domestic supply
 - (b) Agricultural supply
 - (c) Industrial service supply

6. Section 13050(1) of the California Water Code defines "pollution" as follows:

"Pollution means an alteration of the quality of the waters of the State by waste to a degree which unreasonably affects (1) such waters for beneficial uses, or (2) facilities which serve such beneficial uses."

7. To protect the beneficial uses listed in Finding 5, it is required that the ground water in the Vista Hydrographic Subunit not contain constituents exceeding the following applicable water quality criteria:

<u>Constituent</u>	<u>Maximum Allowable Concentration</u>
Total Petroleum Hydrocarbons	1.0 mg/l
Benzene	0.67 µg/l
Toluene	14.3 mg/l
Ethyl Benzene	1.4 mg/l
Ethylene Dibromide	0.05 µg/l

8. The plume of petroleum hydrocarbons contaminated ground water described in Finding 3 contains constituents in concentrations that exceed the water quality criteria listed in Finding 7 and therefore impairs the municipal beneficial use of the ground water in the Vista Hydrographic Subunit. The impairment of the municipal beneficial use constitutes a "pollution" of state waters as defined in Finding 6.
9. This enforcement action is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000 et. seq.) in accordance with Section 15321, Chapter 3, Title 14, California Administrative Code.

IT IS HEREBY ORDERED, That pursuant to Section 13304 of the California Water Code:

1. Unocal Corporation shall submit a report to this office no later than April 30, 1986 identifying and developing a range of remedial action alternatives to clean up the contamination resulting from the petroleum hydrocarbon discharge from Union Oil Service Station No. 5633. The report shall examine and determine the cost of a cleanup strategy corresponding to each of the following final cleanup levels:
- (a) Treatment and/or removal of the contaminated ground water to attain the naturally occurring background concentrations for the following constituents in the underlying ground water aquifer:
- (i) Benzene
 - (ii) Toluene
 - (iii) Ethyl benzene
 - (iv) Total xylenes
 - (v) Total petroleum hydrocarbons
 - (vi) Ethylene dibromide

This cleanup alternative represents basically complete cleanup of contamination resulting from the petroleum hydrocarbon discharge.

- (b) Treatment and/or removal of the contaminated ground water to attain the following water quality criteria in the underlying ground water aquifer:

<u>Constituent</u>	<u>Maximum Concentration</u>
Benzene	0.67 µg/l
Toluene	14.3 mg/l
Ethyl benzene	1.4 mg/l
Total petroleum hydrocarbons	1.0 mg/l
Ethylene dibromide	.05 µg/l

- (c) A remedial action alternative proposing the attainment of petroleum hydrocarbon concentrations in the affected ground water contamination zone which concedes the contaminated ground water to a degraded status. Under this alternative Unocal Corporation may propose final cleanup levels less stringent than those of (a) or (b) listed above.

Under this alternative it will be necessary to establish, to the satisfaction of the Regional Board, that the proposed petroleum hydrocarbon concentrations would comply with the following criteria in accordance with the State "Nondegradation Policy":

- (i) The proposed petroleum hydrocarbon concentrations to be attained in the affected ground water contamination zone would not alter the quality of the ground water in the Vista Hydrographic Subunit to a degree which unreasonably affects the beneficial uses listed in Finding 5.
- (ii) The proposed petroleum hydrocarbon concentrations to be attained in the affected ground water contamination zone will be consistent with the maximum benefit to the people of the state.
- (iii) The proposed petroleum hydrocarbon concentrations to be attained in the affected ground water contamination zone will not result in water quality less than prescribed in the Basin Plan, Ocean Plan or other adopted policies.

2. The cleanup alternatives required under Directive 1 of this Order will be evaluated in detail by Regional Board staff. This evaluation will include technical considerations, estimated costs, and anticipated water quality impacts associated with each alternative. Based on this evaluation a specific cleanup alternative will be selected by Regional Board staff for implementation. Upon notification by the Executive Officer, Unocal Corporation shall implement the cleanup alternative selected by Regional Board staff. If, however, Unocal Corporation wishes to implement cleanup alternative 1(a), the company will not be required to develop cleanup strategies corresponding to alternatives 1(b) and

- 1(c). If Unocal Corporation wishes to implement cleanup alternative 1(b), the company will not be required to develop a cleanup strategy corresponding to alternative 1(c).
3. In the interim period until a final cleanup alternative is selected for implementation, Unocal Corporation shall continue to take:
- (a) Effective remedial action to immobilize the plume of petroleum hydrocarbon contaminated ground water.
 - (b) Effective remedial action to remove all free petroleum hydrocarbon product from the affected ground water.
4. Unocal Corporation shall dispose of petroleum hydrocarbon contaminated ground water and/or soil in accordance with all applicable local, state and federal regulations.
5. Unocal Corporation shall, upon implementation of the selected cleanup alternative, submit quarterly reports discussing the cleanup program status and the progress made towards attaining the final selected cleanup criteria. Specific information to be included in the quarterly progress reports will be determined by Regional Board staff upon selection of the final cleanup alternative.

Ladin H. Delaney

LADIN H. DELANEY
Executive Officer

Dated: March 10, 1986

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. ☐ Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.

3. Article Addressed to:

Mr. Paul S. Morton
Unocal Corporation
P.O. Box 7600
San Diego, CA 92138

4. Type of Service:

- ☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Article Number

P 020 094 500

Always obtain signature of addressee or agent and
DATE DELIVERED:

5. Signature - Addressee

X

6. Signature - Agent

X

7. Date of Delivery

3-13-86

8. Addressee's Address (ONLY if requested and fee paid)

DOMESTIC RETURN RECEIPT

P 020 094 500

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

* U.S.G.P.O. 1984-446-014

PS PS Form 3800, Feb. 1982

Sent to unocal corporation	
Street and No. PO Box 7600	
P.O. State and ZIP Code San Diego, CA 92138	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date March 12, 1986	

CERTIFIED

P 020 094 500

MAIL

State of California
Regional Water Quality Control Board
San Diego Region

EXECUTIVE OFFICER SUMMARY REPORT
March 24, 1986

ITEM: 29

SUBJECT: CLEANUP AND ABATEMENT ORDERS FOR THE CLEANUP OF SUBSURFACE
CONTAMINATION RESULTING FROM LEAKING UNDERGROUND FUEL
STORAGE SYSTEMS

DISCUSSION: Each of the four gasoline service stations included in this
item experienced petroleum hydrocarbon leaks from
underground fuel storage tank systems, resulting in the
contamination of soil and ground water at each site.

The Unocal service station is located at 967 E. Vista Way in
Vista. Petroleum hydrocarbon contamination was discovered
in the excavation during routine tank replacement on August
21, 1985. The amount of fuel discharged is unknown.
Although free product was not found on the ground water in
monitoring wells, over 20 ppm total petroleum hydrocarbons
have been found dissolved in the underlying groundwater.
Cleanup and Abatement Order No. 86-26 was issued to Unocal
Corporation on March 10, 1986 directing them to clean up the
petroleum hydrocarbon contamination resulting from the
underground tank discharge.

The Gulf Oil Company service station is located at 590 South
Coast Highway in Laguna Beach. On April 4, 1985 an
underground tank failed a leak test. Approximately 1600
gallons of unleaded gasoline was discharged underground.
Free fuel product was found on the groundwater in monitoring
wells and 24 ppm total petroleum hydrocarbons dissolved in
the groundwater. Ongoing cleanup efforts by Gulf Oil
Company have resulted in the recovery of approximately 50
gallons of gasoline. On February 27, 1986 Cleanup and
Abatement Order No. 86-21 was issued to Gulf Oil Company
directing them to clean up the petroleum hydrocarbon
contamination resulting from the underground tank discharge.

The Chevron USA, Inc. service station No. 1870 is located at
2890 Rancho California Road in Temecula. Underground
product lines failed a leak test in April, 1984. Free
petroleum hydrocarbon product was subsequently found on the
groundwater in monitoring wells. The volume of gasoline
lost is unknown. An offsite monitoring well located across
the street from the service station #1870 contains 29 ppm
total petroleum hydrocarbons suggesting that the dissolved
product plume has not been immobilized. Cleanup efforts by
Chevron USA, Incorporated are ongoing. Cleanup and
Abatement Order No. 86-23 was issued to Chevron, USA

ITEM:

DISCUSSION: (continued)

Incorporated on March 4, 1986 directing Chevron USA, Incorporated to continue the cleanup program to attain specified cleanup levels in the underlying groundwater.

The Thrifty Oil Company service station is located at 7594 University Avenue in La Mesa. Subsurface petroleum hydrocarbon contamination was discovered at the site on September 29, 1984. The volume of fuel product lost is unknown. Free petroleum hydrocarbon was subsequently found on the water table in on-site monitoring wells. Cleanup efforts by Thrifty Oil Company, consisting of a groundwater extraction operation, are ongoing. A progress report received by this office on October 22, 1985 indicates that Thrifty Oil Company has been discharging the contaminated groundwater from the extraction operation into a storm drain without obtaining an NPDES permit as required by the California Water Code. Cleanup and Abatement Order No. 86-15 was issued to Thrifty Oil Company on February 26, 1986 directing them to immediately terminate this discharge and to continue cleanup efforts to attain appropriate cleanup levels.

ISSUES: Does any of the four responsible parties have any objections to the issuance of these Cleanup and Abatement Orders?

RECOMMENDATION: Staff recommends the Regional Board adopt the Cleanup and Abatement Orders as issued.

SH:vn

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

9771 Clairemont Mesa Blvd., Suite B
San Diego, California 92124-1331
Telephone: (619) 265-5114

**CERTIFIED MAIL - RETURN RECEIPT**

February 23, 1988

File Copy

Mr. Paul S. Morton
Maintenance Engineer
Unocal Corporation
P.O. Box 7600
San Diego, California 92138

Dear Mr. Morton:

TENTATIVE ADDENDUM NO. 1 TO CLEANUP AND ABATEMENT ORDER NO. 86-26

Enclosed is tentative Addendum No. 1 to Cleanup and Abatement Order No. 86-26. As you know, Cleanup and Abatement Order No. 86-26 was issued to Unocal corporation on March 10, 1986, in response to the discharge of fuel hydrocarbons from the leaky underground storage tank system at the Unocal service station No. 5633 in Vista. The enclosed tentative Addendum No. 1 to Order No. 86-26 would, if adopted by the Regional Board, (1) establish the final cleanup levels that Unocal Corporation must achieve at the site, (2) establish quarterly monitoring requirements for the remainder of the cleanup project, (3) require Unocal Corporation to submit a status report to this office by April 25, 1988 containing the information described in Directive 2 of the tentative addendum.

Tentative Addendum No. 1 to Cleanup and Abatement Order No. 86-26 will be considered for adoption at the March 14, 1988, Regional Board meeting. This meeting is open to public participation and you are welcome to attend. It is scheduled for 9:00 am in Room B109 at the State Office Building, 1350 Front Street, San Diego. If you have any comments on or corrections to this tentative Addendum No. 1, please submit them to this office no later than March 7, 1988. In particular, please check to see if the table of cost estimates in Finding 2 is an accurate summary of the information you have submitted to us.

If you have any questions, please call Mr. Scott Hugenberg at the above number.

Very truly yours,

DAVE T. BARKER
Senior Engineer

LL

enclosure

Mr. Morton

-2-

February 23, 1988

cc: Ms. Victoria Gallagher
Hazardous Materials Management Unit
County of San Diego Department of Health Services
1700 Pacific Highway
San Diego, California 92101

Mr. Keith Jones
Woodward-Clyde Consultants
3467 Kurtz Street
San Diego, California 92110

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

ADDENDUM NO. 1 TO
CLEANUP AND ABATEMENT ORDER NO. 86-26

UNOCAL CORPORATION
UNION OIL SERVICE STATION
SAN DIEGO COUNTY

TERMINATED

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board) finds that:

1. On March 10, 1986, the Regional Board Executive Officer issued Cleanup and Abatement Order No. 86-26 to Unocal Corporation, Union Oil Service Station No. 5633 in response to the petroleum hydrocarbon contamination of the ground water resulting from a leak in the underground fuel storage tank system. The site is located at 976 Vista Way in Vista.
2. Directive 1 of Order No. 86-26 required Unocal Corporation to design and estimate the cost of cleanup strategies for a range of potential final cleanup levels. On May 1, 1986, Unocal Corporation submitted this information in a report dated April 18, 1986, and prepared by Woodward-Clyde Consultants. The report contains the following estimated costs to achieve various potential final cleanup levels in the affected contaminated zone:

<u>Alternative Under Order No. 86-26</u>	<u>Ground Water Cleanup Level (total petroleum hydrocarbons)</u>	<u>Soil Cleanup Level</u>	<u>Estimated Cost</u>
1a	Complete cleanup	Complete cleanup	\$ 1,200,000
1b	1.0 mg/L	140 mg/kg	\$ 23,000-70,000
1c	14.0 mg/L	140 mg/kg	\$ 6,000

3. On September 16, 1987, Unocal Corporation submitted a report dated July 6, 1987. The report contains the following information:
 - a) Ground water samples were collected from four monitoring wells on site. The results of chemical analyses on these ground water samples are as follows:

<u>Constituent</u>	<u>Concentrations*</u>			
	<u>MW-1</u>	<u>MW-2</u>	<u>MW-3</u>	<u>MW-4</u>
Benzene	<0.5	<0.5	<0.5	14
Toluene	<0.5	<0.5	<0.5	3.5
Total xylenes	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5

*Units all in µg/L

CONFIDENTIAL

- b) No evidence was provided to indicate that any ground water remedial actions have been undertaken at the site.
 - c) The ground water velocity at the site is estimated to be in the range of 0.04 to 0.28 feet/day.
 - d) Unocal Corporation proposes that the ground water be monitored on a quarterly basis for several quarters.
4. The data submitted to this office by Unocal Corporation are not sufficient to determine if petroleum hydrocarbon ground water contamination has migrated off-site.
5. The County of San Diego Department of Health Services has determined that depending on the horizontal and vertical extent of the petroleum hydrocarbon soil contamination, the final cleanup level in the soil at this site may lie in the range of 100 mg/kg to 140 mg/kg total petroleum hydrocarbons. The exact final cleanup level for the soil will be established after Unocal Corporation has accurately defined the horizontal and vertical extent of the soil contamination.
6. After reviewing all of the information submitted to the Regional Board office by Unocal Corporation concerning service station No. 5633 including cleanup costs, potential impacts to water quality, the location of the site and the likelihood of future potential beneficial use of the ground water basin, the Regional Board has determined that the following State Department of Health Services drinking water action levels will adequately protect the ground water for any future potential beneficial use:

<u>Constituent</u>	<u>Maximum Allowable Concentration</u>
Benzene	0.67 $\mu\text{g/L}$
Toluene	100 $\mu\text{g/L}$
Ethylbenzene	680 $\mu\text{g/L}$
Total xylenes	620 $\mu\text{g/L}$

TEMPORARY

IT IS HEREBY ORDERED, That the following directives shall be added to Order No. 86-23:

1. Unocal Corporation shall continue to cleanup the contamination resulting from the unauthorized fuel hydrocarbon release until the following final cleanup levels have been attained throughout the affected ground water contamination zone:

<u>Constituent</u>	<u>Maximum Allowable Concentration</u>
Benzene	0.67 $\mu\text{g/L}$
Toluene	100 $\mu\text{g/L}$
Ethylbenzene	680 $\mu\text{g/L}$
Total xylenes	620 $\mu\text{g/L}$

2. Unocal Corporation shall conduct an investigation to determine if any petroleum hydrocarbon contaminated ground water has migrated off-site. This will require that Unocal Corporation install monitoring wells down-gradient of the existing monitoring wells and collect ground water samples. Unocal Corporation shall submit a report to this office no later than April 25, 1988, containing the results of this investigation. If this investigation confirms that off-site migration has occurred, Unocal Corporation shall initiate the appropriate remedial actions to clean up the off-site ground water contamination. The report shall include the results of a soils investigation to determine the horizontal and vertical extent of the petroleum hydrocarbon soil contamination.
3. Unocal Corporation shall submit quarterly progress reports to this office for the remainder of the cleanup program. The quarterly monitoring reports shall discuss the progress made in the cleanup and should include the following information:
 - a) A description of the remedial actions being employed by Unocal Corporation.
 - b) Quantity of petroleum hydrocarbon product recovered for the quarter and the total to date.
 - c) Quantity of ground water extracted for the quarter, the total to date, and its ultimate disposal point.
 - d) The water levels and product thicknesses in all of the ground water wells.
 - e) Any information necessary to demonstrate that the petroleum hydrocarbon contamination resulting from the unauthorized release from the underground tank system at the site is fully contained and immobilized or shrinking.
 - f) A map of the site with hydrologic contours showing the ground water flow pattern and the locations of all of the monitoring wells.
 - g) A map of the site showing the boundary of the free petroleum hydrocarbon product plume and also of the dissolved product ground water plume.

TENTATIVE

h) Ground water samples should be collected from the monitoring wells and analyzed for:

- 1) Benzene
- 2) Toluene
- 3) Total xylenes
- 4) Ethylbenzene
- 5) Total petroleum hydrocarbons

The quarterly monitoring reports shall be submitted to this office in accordance with the following schedule:

<u>Reporting Period</u>	<u>Date Due</u>
January, February, March	April 30
April, May, June	July 31
July, August, September	October 31
October, November, December	January 31

4. No later than June 1, 1989, Unocal Corporation shall demonstrate to the satisfaction of the Regional Board Executive Officer that the final cleanup levels listed above have been achieved throughout the affected ground water and soil contamination zones. Unocal Corporation shall continue to collect and analyze the ground water samples and submit monitoring reports in accordance with the monitoring requirements specified in Directive 3 above for a period of at least one year after the final cleanup levels are reached. If at any time during this post cleanup monitoring period the data indicate that the final cleanup levels have not been maintained, or the soil is acting as a continuing source of petroleum hydrocarbons to the ground water, Unocal Corporation shall immediately resume appropriate remedial cleanup actions. If the data indicate that the soil is not contributing petroleum hydrocarbon constituents to the ground water and the final cleanup levels have not been exceeded for the year of monitoring, then no further monitoring shall be required.

TENTATIVE
JADIN H. DELANEY
Executive Officer

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will result in this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery
↑(Extra charge)↑

3. Article Addressed to: Mr. Paul S. Morton Maintenance Engineer Unocal corporation P.O. Box 7600 San Diego, Ca 92138	4. Article Number P 787 009 207 Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail Always obtain signature of addressee or agent and DATE DELIVERED .
5. Signature — Addressee X	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature — Agent X	
7. Date of Delivery FEB 24 1988	

PS Form 3811, Mar. 1987

★ U.S.G.P.O. 1987-178-268

DOMESTIC RETURN RECEIPT

Mr. Morton/Unocal Corp.

Street and No.
P.O. Box 7600

P.O., State and ZIP Code
San Diego, CA 92138

Postage \$

Certified Fee

Special Delivery Fee

Restricted Delivery Fee

Return Receipt showing to whom and Date Delivered

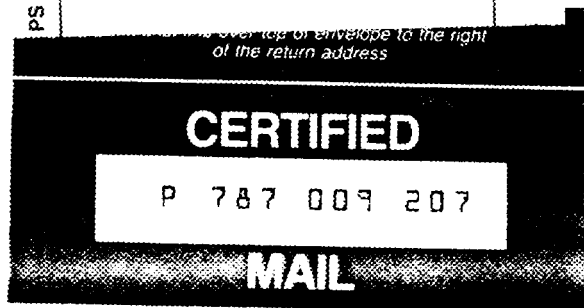
Return Receipt showing to whom Date, and Address of Delivery

TOTAL Postage and Fees \$

Postmark or Date
2-23-88

ent. ADD. 1 to Order 86-26 Vista

PS Form 3800, June 1985



SENDER: Complete items 1 and 2 when additional services are desired, and 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery
↑(Extra charge)↑

3. Article Addressed to: Mr. Paul S. Morton Maintenance Engineer Unocal corporation P.O. Box 7600 San Diego, Ca 92138	4. Article Number P 787 009 207 Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail Always obtain signature of addressee or agent and DATE DELIVERED .
5. Signature — Addressee X	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature — Agent X	
7. Date of Delivery	

DOMESTIC RETURN RECEIPT

★ U.S.G.P.O. 1987-178-268

PS Form 3811, Mar. 1987

**CALIFORNIA REGIONAL W/
SAN DIEGO REGION****R QUALITY CONTROL BOARD**

9771 Clairemont Mesa Blvd., Suite B
San Diego, California 92124-1331
Telephone: (619) 265-5114

**CERTIFIED MAIL - RETURN RECEIPT**

March 18, 1988

Mr. Paul S. Morton
Maintenance Engineer
Unocal Corporation
P.O. Box 7600
San Diego, California 92138

Dear Mr. Morton:

ADDENDUM NO. 1 TO CLEANUP AND ABATEMENT ORDER NO. 86-26

Enclosed is a copy of Addendum No. 1 to Cleanup and Abatement Order No. 86-26. This order was adopted at the March 14, 1988 Regional Board meeting. Addendum No. 1 to Cleanup and Abatement Order No. 86-26 establishes the final cleanup levels that Unocal Corporation must achieve at the site, (2) establishes quarterly monitoring requirements for the remainder of the cleanup project, (3) requires Unocal Corporation to submit a status report to this office by April 25, 1988 containing the information described in Directive 2 of the addendum. Your first quarterly report is due in this office no later than July 31, 1988.

If you have any questions regarding Addendum No. 1, please call Mr. Scott Hugenberg at the above number.

Very truly yours,

DAVE T. BARKER
Senior Engineer

LL

enclosure

cc: Ms. Victoria Gallagher
Hazardous Materials Management Unit
County of San Diego Department of Health Services
1700 Pacific Highway
San Diego, California 92101

Mr. Keith Jones
Woodward-Clyde Consultants
3467 Kurtz Street
San Diego, California 92110

file

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

**ADDENDUM NO. 1 TO
CLEANUP AND ABATEMENT ORDER NO. 86-26**

**UNOCAL CORPORATION
UNION OIL SERVICE STATION
SAN DIEGO COUNTY**

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board) finds that:

1. On March 10, 1986, the Regional Board Executive Officer issued Cleanup and Abatement Order No. 86-26 to Unocal Corporation, Union Oil Service Station No. 5633 in response to the petroleum hydrocarbon contamination of the ground water resulting from a leak in the underground fuel storage tank system. The site is located at 976 Vista Way in Vista.
2. Directive 1 of Order No. 86-26 required Unocal Corporation to design and estimate the cost of cleanup strategies for a range of potential final cleanup levels. On May 1, 1986, Unocal Corporation submitted this information in a report dated April 18, 1986, and prepared by Woodward-Clyde Consultants. The report contains the following estimated costs to achieve various potential final cleanup levels in the affected contaminated zone:

<u>Alternative Under Order No. 86-26</u>	<u>Ground Water Cleanup Level (total petroleum hydrocarbons)</u>	<u>Soil Cleanup Level</u>	<u>Estimated Cost</u>
1a	Complete cleanup	Complete cleanup	\$ 1,200,000
1b	1.0 mg/L	140 mg/kg	\$ 23,000-70,000
1c	14.0 mg/L	140 mg/kg	\$ 6,000

3. On September 16, 1987, Unocal Corporation submitted a report dated July 6, 1987. The report contains the following information:
 - a) Ground water samples were collected from four monitoring wells on site. The results of chemical analyses on these ground water samples are as follows:

<u>Constituent</u>	<u>Concentrations*</u>			
	<u>MW-1</u>	<u>MW-2</u>	<u>MW-3</u>	<u>MW-4</u>
Benzene	<0.5	<0.5	<0.5	14
Toluene	<0.5	<0.5	<0.5	3.5
Total xylenes	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5

*Units all in $\mu\text{g/L}$

- b) No evidence was provided to indicate that any ground water remedial actions have been undertaken at the site.
 - c) The ground water velocity at the site is estimated to be in the range of 0.04 to 0.28 feet/day.
 - d) Unocal Corporation proposes that the ground water be monitored on a quarterly basis for several quarters.
4. The data submitted to this office by Unocal Corporation are not sufficient to determine if petroleum hydrocarbon ground water contamination has migrated off-site.
5. The County of San Diego Department of Health Services has determined that depending on the horizontal and vertical extent of the petroleum hydrocarbon soil contamination, the final cleanup level in the soil at this site may lie in the range of 100 mg/kg to 140 mg/kg total petroleum hydrocarbons. The exact final cleanup level for the soil will be established after Unocal Corporation has accurately defined the horizontal and vertical extent of the soil contamination.
6. After reviewing all of the information submitted to the Regional Board office by Unocal Corporation concerning service station No. 5633 including cleanup costs, potential impacts to water quality, the location of the site and the likelihood of future potential beneficial use of the ground water basin, the Regional Board has determined that the following State Department of Health Services drinking water action levels will adequately protect the ground water for any future potential beneficial use:

<u>Constituent</u>	<u>Maximum Allowable Concentration</u>
Benzene	0.67 µg/L
Toluene	100 µg/L
Ethylbenzene	680 µg/L
Total xylenes	620 µg/L

IT IS HEREBY ORDERED, That the following directives shall be added to Order No. 86-23:

1. Unocal Corporation shall continue to cleanup the contamination resulting from the unauthorized fuel hydrocarbon release until the following final cleanup levels have been attained throughout the affected ground water contamination zone:

<u>Constituent</u>	<u>Maximum Allowable Concentration</u>
Benzene	0.67 $\mu\text{g/L}$
Toluene	100 $\mu\text{g/L}$
Ethylbenzene	680 $\mu\text{g/L}$
Total xylenes	620 $\mu\text{g/L}$

2. Unocal Corporation shall conduct an investigation to determine if any petroleum hydrocarbon contaminated ground water has migrated off-site. This will require that Unocal Corporation install monitoring wells down-gradient of the existing monitoring wells and collect ground water samples. Unocal Corporation shall submit a report to this office no later than April 25, 1988, containing the results of this investigation. If this investigation confirms that off-site migration has occurred, Unocal Corporation shall initiate the appropriate remedial actions to clean up the off-site ground water contamination. The report shall include the results of a soils investigation to determine the horizontal and vertical extent of the petroleum hydrocarbon soil contamination.
3. Unocal Corporation shall submit quarterly progress reports to this office for the remainder of the cleanup program. The quarterly monitoring reports shall discuss the progress made in the cleanup and should include the following information:
 - a) A description of the remedial actions being employed by Unocal Corporation.
 - b) Quantity of petroleum hydrocarbon product recovered for the quarter and the total to date.
 - c) Quantity of ground water extracted for the quarter, the total to date, and its ultimate disposal point.
 - d) The water levels and product thicknesses in all of the ground water wells.
 - e) Any information necessary to demonstrate that the petroleum hydrocarbon contamination resulting from the unauthorized release from the underground tank system at the site is fully contained and immobilized or shrinking.
 - f) A map of the site with hydrologic contours showing the ground water flow pattern and the locations of all of the monitoring wells.
 - g) A map of the site showing the boundary of the free petroleum hydrocarbon product plume and also of the dissolved product ground water plume.

h) Ground water samples should be collected from the monitoring wells and analyzed for:

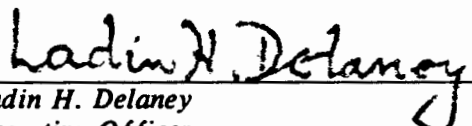
- 1) Benzene
- 2) Toluene
- 3) Total xylenes
- 4) Ethylbenzene
- 5) Total petroleum hydrocarbons

The quarterly monitoring reports shall be submitted to this office in accordance with the following schedule:

<u>Reporting Period</u>	<u>Date Due</u>
January, February, March	April 30
April, May, June	July 31
July, August, September	October 31
October, November, December	January 31

4. No later than June 1, 1989, Unocal Corporation shall demonstrate to the satisfaction of the Regional Board Executive Officer that the final cleanup levels listed above have been achieved throughout the affected ground water and soil contamination zones. Unocal Corporation shall continue to collect and analyze the ground water samples and submit monitoring reports in accordance with the monitoring requirements specified in Directive 3 above for a period of at least one year after the final cleanup levels are reached. If at any time during this post cleanup monitoring period the data indicate that the final cleanup levels have not been maintained, or the soil is acting as a continuing source of petroleum hydrocarbons to the ground water, Unocal Corporation shall immediately resume appropriate remedial cleanup actions. If the data indicate that the soil is not contributing petroleum hydrocarbon constituents to the ground water and the final cleanup levels have not been exceeded for the year of monitoring, then no further monitoring shall be required.

I, Ladin H. Delaney, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, on March 14, 1988.



Ladin H. Delaney
Executive Officer

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person postmaster for fees and check box(es) for additional services are available. Consult

1. ☐ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery (Extra charge)†

3. Article Addressed to:
Mr. Paul S. Morton
Maintenance Engineer
Unocal Corporation
P.O. Box 7600
San Diego, CA 92138

4. Article Number
P 787 009 254

Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee ☒ X

6. Signature — Agent *Paul S. Morton* ☒ X

7. Date of Delivery *MAR 21 1988*

8. Addressee's Address (ONLY if requested and fee paid)

PS Form 3811, Mar. 1987 * U.S.G.P.O. 1987-178-268

P 787 009 254

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to
Mr. Morton/ UNOCAL

Street and No.
P.O. Box 7600

P.O. State and ZIP Code
San Diego, CA 92138

Postage

Certified Fee

Special Delivery Fee

Restricted Delivery Fee

Return Receipt showing to whom and Date Delivered

Return Receipt showing to whom Date, and Address of Delivery

TOTAL Postage and Fees

Postmark or Date

PS Form 3800, June 1985

End at line over top of envelope to the right of the return address

CERTIFIED

P 787 009 254

MAIL

Addendum no. 1 to CAO No. 86-26

Shell Oil Company



P.O. Box 4848
511 N. Brookhurst Street
Anaheim, California 92803

January 28, 1990
Project No. 8753066H-EC01

California Regional Water Quality Control Board
9771 Clairemont Mesa Boulevard, Suite B
San Diego, California 92124-1331

Attention: Mr. James Munch

NOTICE OF VIOLATION
CLEANUP AND ABATEMENT ORDER NO. 86-88
SHELL OIL COMPANY SERVICE STATION
898 BROADWAY STREET
EL CAJON, CALIFORNIA

SHELL WIC NO. 204-2382-0107
UNAUTHORIZED RELEASE NO. H171-089-001

Dear Mr. Munch:

It was a pleasure talking with you concerning the Shell Oil Company (Shell) property on Broadway Street in El Cajon. I would like to take this opportunity to restate Shell's position regarding the subject site and inquire again as to whether anything can be done to rescind the violation issued by your office.

On December 6, 1989, the San Diego Regional Water Quality Control Board (RWQCB) issued Notice of Violation (NOV) N89-107 to Shell for the subject Shell service station. The NOV charges that Shell has failed to comply with the directives of Cleanup and Abatement Order (C&A) No. 86-88, issued by the RWQCB for the subject site on October 6, 1986. Specifically, the NOV states that groundwater contamination has migrated off-site and that Shell has not identified the extent of the contamination (Directive No. 1) or immobilized the plume (Directive No. 2). •The NOV further indicated the threat of civil liability and associated fines up to \$5,000 per day should Shell fail to institute remedial actions by January 31, 1990. It is Shell's belief that the charges set forth in NOV N89-107 do not accurately reflect Shell's remedial efforts on the site, and that issuance of the NOV is not justified.

Following the issuance of C&A Order No. 86-88 in 1986, Shell retained Wayne Perry Construction, Inc. (Wayne Perry) to conduct subsurface investigations and install 12 on-site groundwater monitoring wells (MW-1 through MW-12). The results of groundwater analyses indicated dissolved contamination in the vicinity of the former tanks; however, no free hydrocarbon product was detected. In a report dated April 29, 1987, Wayne Perry indicated that an off-site source of hydrocarbon contamination was suspected to the east of the subject Shell site. The April 1987 report that was submitted to the RWQCB also contained the results of a study conducted by Shell, indicating that a release of hydrocarbons had been documented in 1986 at the neighboring Thrifty Oil Company (Thrifty) service station to the east of the Shell site. Shell stated that the Thrifty site was the likely source of the dissolved hydrocarbon plume detected in the groundwater along the



OK YEA
R16
KW
2/13

southern portion of the Shell site, and Shell proposed additional wells to evaluate this possibility.

In April 1987, Shell retained Woodward-Clyde Consultants (WCC) to implement soil and groundwater remedial systems on the site, and to conduct additional investigations to evaluate the extent of Shell's release and assess off-site contribution. A groundwater treatment system was installed in October 1987 and a soil vapor extraction system (VES) was designed in 1988 and installed in 1989, both under the oversight of Mr. Scott Hugenberger of the RWQCB. The groundwater system was designed to address the on-site problem and to avoid drawing in the contaminant plume that was suspected to be migrating onto the property from the east. Malfunction and subsequent replacement of the VES equipment delayed startup of soil remediation until December 1989.

Two additional monitoring wells were installed upgradient (east) of the Shell site by WCC in March 1988 (MW-13 and -14). Based on the results of groundwater analyses and the southwesterly groundwater flow direction, WCC stated in a quarterly monitoring report dated April 29, 1988, that the elevated dissolved hydrocarbon levels along the southern and eastern Shell site boundaries were possibly the result of the Thrifty release.

WCC installed three additional monitoring wells (MW-15, -16, and -17) at on-site and off-site locations in April 1989 to continue to evaluate the extent of the dissolved contaminant plume. Wells installed downgradient of the Shell site indicated non-detectable concentrations of hydrocarbon contaminants. This was previously discussed by my predecessor, Mr. Frank Fossati, with Mr. Scott Hugenberger of the RWQCB and it was understood that Thrifty would define contamination further to the west, downgradient of their release.

In the October 1989 quarterly monitoring report for the subject site, WCC indicated the presence of free hydrocarbon product (0.03 feet) in one well along the southern Shell property boundary. The RWQCB subsequently issued NOV N89-107, charging Shell with non-compliance as stated above, in response to the presence of free product in the on-site well. Based on available evidence, it is Shell's and WCC's opinion that the presence of the product appears to be related to the Thrifty release.

Following the receipt of the NOV, additional data for the Thrifty site have been obtained from the RWQCB files and reviewed by WCC and Shell personnel. The Thrifty release, which occurred in 1986, resulted in soil contamination of up to 4,500 mg/kg petroleum hydrocarbons and the presence of three feet of hydrocarbon product in one of Thrifty's wells in January 1988. In analyzing the Thrifty data, it appears that Thrifty has not been required to evaluate the off-site extent of their release, and that the absence of data regarding the Thrifty release has made Shell's investigations more difficult. Furthermore, a C&A Order has not been issued for the Thrifty site and a quarterly monitoring program was not requested by the RWQCB. Groundwater monitoring that is presently conducted on the Thrifty site does not include discrete analyses of the monitoring wells for petroleum hydrocarbon constituents, further complicating Shell's efforts to evaluate potential off-site contribution.

Shell fully intends to continue with the investigation and remediation of the subject Shell site and has presently instructed WCC to prepare a work plan to comply with the NOV deadline of January 31, 1990. However, Shell sees no valid reason for the NOV to have been issued and believes that it is Thrifty's responsibility to define and immobilize the off-

site extent of their (Thrifty's) plume. Although Mr. James Munch of the RWQCB indicated to WCC representatives that he can assist Shell in installing wells on the Thrifty site, it is Shell's opinion that we are not responsible for installing wells to assess the Thrifty release. Shell is, however, willing to cooperate with Thrifty in the installation of off-site wells and is exploring this possibility with Thrifty's management.

As I stressed in our conversation, Shell regards a Notice of Violation as an extremely serious matter. We place great importance in complying with all environmental laws, and feel that we are amongst the leaders in adhering to these requirements. It was heartening to receive your concurrence in this regard. I realize what you mentioned about the inability to rescind a Notice of Violation once it has been issued, but I cannot help believe that the notice was issued without a full appreciation of all of the details surrounding the investigation.

Shell should not be penalized for someone else's product which happens to find its way onto or near our property, nor for its disruptive effect on our defining the extent of contamination. Shell should receive even greater consideration in this regard where, as here, we were bearing the full burden of the investigation despite substantial evidence of a release by others.

We have done everything which we told the RWQCB we would do, and we have never received word from the RWQCB to do anything other than what was proposed.


Records of our testing and monitoring for the past three years indicate that there have been no releases from the subject Shell site during this time.

A work plan for additional investigation and a monitoring report for the fourth quarter of 1989 will be submitted to your office by WCC before the January 31, 1990 deadline. Based on the foregoing information, Shell requests that NOV N89-107 be rescinded by the RWQCB.

Please contact us if we can provide additional information. We look forward to your response.

Sincerely,

SHELL OIL COMPANY



Randolph F. Orlowski
Environmental Engineer

RFO/kah

cc: Mr. Terry Runnels, Shell Oil Company
Mr. Carl Grimmer, Shell Oil Company
Mr. Frank Fossati, Shell Oil Company
Ms. Linda Metcalf, Woodward-Clyde Consultants
Mr. Jesse Collette, Woodward-Clyde Consultants

b/jgc7